

In the Claims:

Please amend the claims as follows:

~~Amended Claims:~~What is claimed is:

1 - 26. (Cancelled)

27. (New) A method for manufacturing a metal-ceramic substrate, in which a metallization forming a plurality of metal areas is applied to at least one surface side of a ceramic layer, and in which, after application of the metal areas, the ceramic layer is heated, in a thermal treatment or process step, in the areas not covered by the metal areas in order to produce separating or break-off lines between the metal areas, wherein the heating of the ceramic layer during the thermal treatment or process step takes place progressively and without vaporization or burning of the ceramic material in a treatment area that moves in relation to the ceramic layer, and that after the heating process the ceramic is progressively shock-cooled so that a controlled fracture or weakening of material is effected in the ceramic layer in order to produce the separating or break-off line.

28. (New) The method according to claim 27, wherein the metal area of said metallization being bonded with the ceramic layer by means of direct copper bond bonding or an active soldering process.

29. (New) The method according to claim 27, wherein the at least one metal area is produced using a thick film process or a thick film technology.

30. (New) The method according to claim 27, wherein the at least one metal area is produced using the Mo-Mn process, a W process, an LTCC process, or a combination thereof.

31. (New) The method according to claim 27, wherein the heating of the ceramic layer during the thermal treatment or process step is effected by means of an energy beam or a laser beam.

32. (New) The method according to claim 31, wherein the laser beam is focused in order to form an oval focus, with its greater cross-section axis oriented in the processing direction (A).

33. (New) The method according to claim 27, wherein the ceramic layer is thermally separated or split along the respective separating line by means of the thermal treatment or process step.

34. (New) The method according to claim 27, wherein a break-off line is produced in the ceramic layer by means of the thermal treatment or process step, enabling subsequent controlled mechanical breaking of the ceramic layer.

35. (New) The method according to claim 27, wherein the heating of the ceramic layer is effected by means of a hot gas beam, a flame, a plasma, or microwave energy.

36. (New) The method according to claim 27, wherein the cooling of the ceramic layer is effected progressively at a pre-defined spatial and/or temporal distance (x) from the heating.

37. (New) The method according to claim 27, wherein the treatment of the ceramic layer is effected with the coolant progressively and point by point.

38. (New) The method according to claim 37, wherein the coolant is applied to the ceramic layer in the form of at least one coolant stream.

39. (New) The method according to claim 37, wherein the coolant is a liquid medium, water, a gaseous or vaporous medium, an aerosol, or a mixture of these.

40. (New) The method according to claim 27, wherein the ceramic layer is held in a clamping fixture during the thermal treatment or process step, by means of a vacuum.

41. (New) The method according to claim 27, wherein the ceramic layer or the metal-ceramic substrate formed by said layer is located on a self-adhesive foil for separation into single substrates.

42. (New) The method according to claim 27, wherein the thermal treatment is effected along a groove produced on at least one surface side of the ceramic layer.

43. (New) The method according to claim 27, wherein at least one metal area is applied to both surface sides of the ceramic layer.

44. (New) The method according to claim 27, wherein the ceramic layer is part of a multiple substrate, that a plurality of metal areas, each allocated to one single substrate, are provided on at least one surface side of the ceramic layer, and that the separating or break-off lines are produced between the single substrates through the thermal treatment or process step.

45. (New) The method according to claim 27, wherein the ceramic layer is selected from the mullite group, Al_2O_3 , AlN , Si_3N_4 , SiC , BeO , TiO_2 , ZrO_2 , or Al_2O_3 with a ZrO_2 content.

46. (New) The method according to claim 27, wherein the ceramic layer has a thickness between 0.1 and 3 mm.

47. (New) The method according to claim 27, wherein the at least one metal area has a thickness between 0.02 and 0.6 mm, or a thickness between 0.1 and 0.6 mm.

48. (New) The method according to claim 27, wherein in the case of a plurality of metal areas on one surface side of the ceramic layer, said metal areas are at a distance of 0.1 - 3 mm from each other.

49. (New) The method according to one claim 27, wherein the metal areas are manufactured at least partially from a metal layer or foil, a copper layer or foil, using a direct bonding process or an active soldering process.